

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A variable frequency oscillator comprising:
an oscillatory circuit for generating a periodic output dependant on the capacitance between a first node and a second node of the circuit, and having a capacitive element connected between the first node and the second node; the capacitive element comprising:
a variable capacitance unit, the capacitance of which is variable by means of a voltage applied to a variable capacitance input for varying the frequency of the output;
[[and]]
a plurality of trimming capacitances each being selectively connectable to the variable capacitance unit to trim the frequency of the output;
a memory for storing information defining one or more sets of the trimming capacitances; and
control apparatus coupled to the memory for causing a set of the trimming capacitances to be connected to the variable capacitance unit by the steps of:
retrieving from the memory information defining a set of the trimming capacitances;
connecting that set of the trimming capacitances to the variable capacitance unit;
comparing the voltage at the variable capacitance input with a first preset voltage range; and
if that voltage is outside the first preset voltage range, determining, based on the voltage at the variable capacitance input, an adjusted set of the trimming capacitances and storing in the memory information defining that adjusted set of the trimming capacitances.

2. (Previously Presented) The variable frequency oscillator of claim 1, wherein the trimming capacitances are each selectively connectable between the first node and an intermediate node, and wherein the variable capacitance unit is connected between the second node and the intermediate node.

3. (Previously Presented) The variable frequency oscillator of claim 1, wherein the trimming capacitances are each selectively connectable in parallel with each other.

4. (Previously Presented) The variable frequency oscillator of claim 1, wherein a switch is connected in series with each trimming capacitance for selectively connecting the respective trimming capacitance to the variable capacitance unit in response to a respective switching signal.

5. (Previously Presented) The variable frequency oscillator of claim 4, wherein each switch is a switching transistor.

6. Cancelled

7. (Currently Amended) The variable frequency oscillator of claim [[6]] 1, wherein the control apparatus is capable of generating the switching signals.

8. Cancelled

9. (Currently Amended) The variable frequency oscillator of claim [[8]] 1, wherein each of the said one or more sets corresponds to a respective operating frequency of the oscillator.

10. Cancelled

11. (Previously Presented) The variable frequency oscillator of claim 1, wherein at least one of the trimming capacitances has a different capacitance value from another of the trimming capacitances.

12. Cancelled

13. (Currently Amended) The variable frequency oscillator of claim ~~[[12]]~~ 1, comprising feedback apparatus connected between the output and the variable capacitance input for stabilising the oscillator.

14. (Previously Presented) The variable frequency oscillator of claim 13, wherein the feedback apparatus is a phase-locked loop.

15. (Previously Presented) The variable frequency oscillator of claim 1, wherein the variable capacitance unit is a variable capacitance diode.

16. (Original) A radio terminal comprising a variable oscillator as claimed in claim 1.

17. Cancelled

18. (Currently Amended) The method of claim ~~[[17]]~~ 1, wherein the step of determining is performed only if the voltage at the variable capacitance input is inside a second preset voltage range.

19. (Currently Amended) The method of claim ~~[[17]]~~ 1, wherein, in the step of storing, the information defining the adjusted set of the trimming capacitances is stored so as to replace in the memory the said information defining a set of the trimming capacitances.

20-38. (Cancelled)

39. (Previously Presented) The variable frequency oscillator of claim 1, wherein the trimming capacitances are each selectively connectable in series with each other.

40. (New) A variable frequency oscillator comprising:

an oscillatory circuit for generating a periodic output dependant on the capacitance between a first node and a second node of the circuit, and having a capacitive element connected between the first node and the second node; the capacitive element comprising:

a variable capacitance unit, the capacitance of which is variable for varying the frequency of the output; and

a plurality of trimming capacitances each being selectively connectable to the variable capacitance unit to trim the frequency of the output, wherein

the trimming capacitances are each selectively connectable between the first node and an intermediate node, and

the variable capacitance unit is connected between the second node and the intermediate node.

41. (New) The variable frequency oscillator of claim 40, wherein the trimming capacitances are each selectively connectable in parallel with each other.

42. (New) The variable frequency oscillator of claim 40, wherein a switch is connected in series with each trimming capacitance for selectively connecting the respective trimming capacitance to the variable capacitance unit in response to a respective switching signal.

43. (New) The variable frequency oscillator of claim 42, wherein each switch is a switching transistor.

44. (New) The variable frequency oscillator of claim 42, comprising a control apparatus for causing a set of the trimming capacitances to be connected to the variable capacitance unit.

45. (New) The variable frequency oscillator of claim 44, wherein the control apparatus is capable of generating the switching signals.

46. (New) The variable frequency oscillator of claim 44, comprising a memory coupled to the control apparatus for storing information defining one or more sets of the trimming capacitances.

47. (New) The variable frequency oscillator of claim 46, wherein each of the said one or more sets corresponds to a respective operating frequency of the oscillator.

48. (New) The variable frequency oscillator of claim 46, wherein the control apparatus is capable of retrieving from the memory information defining a set of the trimming capacitances and causing each of the trimming capacitances within that set of the trimming capacitances to be connected to the variable capacitance unit.

49. (New) The variable frequency oscillator of claim 40, wherein at least one of the trimming capacitances has a different capacitance value from another of the trimming capacitances.

50. (New) The variable frequency oscillator of claim 40, wherein the capacitance of the variable capacitance unit is variable by means of the a voltage applied to a variable capacitance input.

51. (New) The variable frequency oscillator of claim 50, comprising feedback apparatus connected between the output and the variable capacitance input for stabilising the oscillator.

52. (New) The variable frequency oscillator of claim 51, wherein the feedback apparatus is a phase-locked loop.

53. (New) The variable frequency oscillator of claim 40, wherein the variable capacitance unit is a variable capacitance diode.

54. (New) A radio terminal comprising a variable oscillator as claimed in claim 40.

55. (New) A method for operating a variable frequency oscillator as claimed in claim 46, the method comprising:

retrieving from the memory information defining a set of the trimming capacitances;
connecting that set of the trimming capacitances to the variable capacitance unit;
comparing the voltage at a variable capacitance input with a first preset voltage range; and

if that voltage is outside the first preset voltage range determining, based on the voltage at the variable capacitance input, an adjusted set of the trimming capacitances and storing in the memory information defining that adjusted set of the trimming capacitances.

56. (New) The method of claim 55, wherein the step of determining is performed only if the voltage at the variable capacitance input is inside a second preset voltage range.

57. (New) The method of claim 55, wherein, in the step of storing, the information defining the adjusted set of the trimming capacitances is stored so as to replace in the memory the said information defining a set of the trimming capacitances.